

Preface to the Selected Papers from the 10th Jubilee International Conference on Deregulated Electricity Market Issues in South Eastern Europe 24-25 September 2015, Budapest, Hungary

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The electric power and energy sector is facing challenges that are transforming its scope, methods, apparatus, regulation, public perception – almost everything but the basic theoretical foundations.

The Germany-based VDE, the Association for Electrical, Electronic & Information Technologies states in one of its reports¹: “We stand today at the threshold of a second pioneering era of electrical engineering. It is characterized among other things by the emergence of new fields of technology applications, which are strongly linked to social developments. Prime examples are electric mobility, smart grids and Ambient Assisted Living. They are closely linked to new challenges such new mobility concepts, efficient and climate-compliant energy management and demographic changes. ... In the future, electricity will be more than ever the universal energy source.”

To illustrate the significance of the challenges, VDE states in another report²: “Germany is facing its Project of the century. The ‘great transformation’ of the electrical energy supply system is at best comparable to the digitization of the telecommunication infrastructure, but exceeds it by far in scope and importance. ... There is much at stake: ... the functioning of a lifeline of modern industrial society and the future of a secure, climate-friendly and economic power supply...”

In response to the global tasks ahead, DEMSEE was launched as a forum for discussions on electricity market issues as well as the operation aspects of interconnected and isolated power systems in South-Eastern Europe. The purpose of this annual event, as initially stated, was to highlight the importance of research and development for the future of the electricity sector in South-Eastern Europe, in the context of the on-going electricity deregulation, and to present the efforts undertaken by the various academic and research establishments as well

as the industry and the regulators in this field. Stages of the conference series have been the following: Iraklio, Crete (2006); Istanbul, Turkey (2007); Nicosia, Cyprus (2008); Belgrade, Serbia (2009); Sitia, Crete (2010); Bled, Slovenia (2011); Bucharest, Romania (2012); Cavtat, Croatia (2013); Nicosia, Cyprus (2014); and Budapest, Hungary (2015).

Over the last 10 years DEMSEE has grown to be one of the most important conferences on a wide range of power system issues held in Central and Eastern Europe. With a broad international attendance from all over the World, DEMSEE provides an excellent networking opportunity to establish new professional relationships and/or start new projects in the region.

Market development experts and power engineers from all over the world gather to share their experience on the conference topics and academicians merge their theoretical concepts with the practical experience of industry professionals. Specialists from the region contribute by joining the discussions on specific topics related to deregulated market development and operation.

For DEMSEE 2015 in Budapest 50 papers were accepted for presentation. The conference sections covered the following topics:

- Electricity Markets
- Energy Regulation and Incentives
- Transmission System Monitoring and Stability
- Transmission System Dynamics and Analysis
- Smart Distribution Systems
- Photovoltaic Systems
- Renewable Energy Systems
- Distributed Generation and Storage
- Power System Components
- IT Solutions in Power System Operation and Control

The reviewers selected 13 papers for publication in the underlying Special Issue of Periodica Polytechnica Electrical Engineering and Computer Science, which thus reflects the essence of this jubilee event.

¹ Ingenieurinnen und Ingenieure der Elektrotechnik/Informationstechnik, VDE, Frankfurt am Main, 2010

² Energiehorizonte 2020 – Stromversorgung der Zukunft, VDE, Frankfurt am Main, 2012

We would like to express our gratitude for the International Scientific Committee for their selfless and dedicated contribution in ensuring the quality of the papers:

George Ashikalis	Cyprus
Gergely Balázs	Hungary
Math Bollen	Sweden
Ninel Cukalevski	Serbia
Dániel Divényi	Hungary
Istvan Erlich	Germany
Lothar Fickert	Austria
Ole Gjerde	Norway
Attila Györe	Hungary
Nikos Hadjiargyriou	Greece
Bálint Hartmann	Hungary
Mohammad Hesamzadeh	Sweden
Admir Jahic	Bosnia-Herzegovina
George Kallos	Greece
Vladimir Katic	Serbia
Péter Kiss	Hungary
Christian Koehler	Germany
Tatjana Konjic	Bosnia-Herzegovina
József Ladányi	Hungary
Matti Lehtonen	Finland
Bill Meehan	USA
Jan Meyer	Germany
Wladislaw Mielczarski	Poland
Rafael Mihalic	Slovenia
Alexander Novitskiy	Germany

Konstantin Papailiou	Switzerland
Igor Papic	Slovenia
Balázs Plesz	Hungary
Herwig Renner	Austria
Urban Rudez	Slovenia
Jevgeni Shklovski	Estonia
Ádám Tamus	Hungary
Lucian Toma	Romania
Petr Toman	Czech Republic
Toomas Vaimann	Estonia
Reinier van der Veen	Netherlands
Károly Veszprémi	Hungary
Simon J. Watson	UK

We would also like to thank all Authors, who submitted their papers to the conference, thereby paving the way towards solutions of the aforementioned challenges.

Finally, in the name of the whole DEMSEE community, we would like to thank Professor Thales M. Papazoglou, Convener of DEMSEE conferences, for his commitment to our profession and his tireless enthusiasm in launching and steering this series of conferences, with more successful events expected to follow under his conduct.

This Special Issue shall be dedicated to Thales, with warmest compliments and best wishes on the occasion of his 70th birthday.